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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,318	02/20/2004	Isao Kanno	FS.17208US1C	6876

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EXAMINER

BASINGER, SHERMAN D

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/783,318

Applicant(s)

KANNO, ISAO

Examiner

Sherman D. Basinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/113922.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 19-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henmi in view of Hapka et al and Tobinaga et al.

Henmi discloses a jet pump powered small personal watercraft designed to accommodate no more than 4 passengers comprising a hull with a rear portion that defines a planing area (see figures 1-3), an engine 22 disposed within the hull, a lubrication system configured to circulate lubricant through the engine (see column 5, 1st full paragraph), a throttle valve 102 and an engine load input device comprising a throttle lever 103.

Henmi does not disclose a lubricant pressure sensor configured to detect a pressure within the lubrication system, an engine speed sensor configured to detect a speed of the engine, a controller configured to gradually decrease engine speed if the lubricant pressure is below a predetermined pressure, and the controller being configured to determine the engine load based on a position of a throttle valve.

Hapka et al discloses a lubrication pressure sensor 13 used in a system to reduce engine speed gradually by cutting off fuel to fuel injectors 20 so as to disable one or

more fuel injectors and to also reduce the fuel injection to at least one of the combustion chambers when oil pressure falls below a pressure limit, and a controller configured to gradually decrease engine speed if the lubricant pressure is below a predetermined pressure.

Tobinaga et al discloses an engine speed sensor 32, a throttle valve opening sensor 34 to detect the position of the throttle valve and a controller configured to determine the engine load based on a position of the throttle valve through the throttle valve opening sensor 34 and to reduce engine speed when a detector of lubricant level detects a low level (columns 19 and 20).

In view of what is taught by Hapka et al and Tobinaga et al, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to provide to Henmi a lubricant pressure sensor configured to detect a pressure within the lubrication system, an engine speed sensor configured to detect a speed of the engine, and a controller configured to gradually decrease engine speed if the lubricant pressure is below a predetermined pressure, the controller being configured to determine the engine load based on a position of a throttle valve.

Motivation to do so is to protect the engine of Henmi from low lubricant pressure and to gradually reduce engine speed to protect a rider of the Henmi watercraft.

In Henmi the engine load input device 103 is in direct communication with the throttle valve 102.

By disabling the fuel injectors as taught by Hapka et al, the controller is configured to gradually reduce combustion in the engine so as to gradually reduce the speed of the engine.

Hapka et al discloses the controller triggering an alarm 18a when the pressure of the lubricant changes by more than the predetermined magnitude of pressure. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to provide such an alarm to Henmi along with the controller. Motivation to do so is to provide a visual warning that the lubricant pressure is insufficient.

Neither Henmi, Hapka et al nor Tobinaga et al disclose the controller being configured to respond to a fault detection in said lubrication system when said watercraft is at planing speed so as to gradually reduce the engine speed of said watercraft to reduce said watercraft's speed to below planing speed.

However, to configure the controller provided to Henmi in view of the controllers of Hapka et al and Tobinaga et al as such would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Motivation to do so is to have the engine speed only reduced for a lubricant pressure malfunction if the engine speed is sufficient to produce planing of the watercraft of Henmi. If the watercraft isn't planing, the engine speed is less likely to suffer damage to low oil pressure.

With regard to the controller being configured to continue to operate the engine at a reduced engine speed until the engine load input device is moved to a position corresponding to an engine load that is below a predetermined engine load, see column 19, lines 55-65 of Tobinaga et al. Thus, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains to have the controller provided to Henmi in view of Hapka et al and Tobinaga et al be configured to reduce engine speed until the engine load input device is moved to a position corresponding to an engine load that is below a predetermined engine load. Motivation to do so is to protect the engine by keeping the speed of the engine low when a user still attempts to operate the engine in a high speed although lubricant pressure is insufficient.

Henmi discloses the jet pump driven by the engine and the steering nozzle.

Response to Arguments

3. The rejection of claims 38-44 under the second paragraph of 35 U.S.C. 112 has been overcome by applicant amending claim 38 to depend upon claim 37.

4. The rejection of claims 25, 36, 37 and 44 under the first paragraph of 35 U.S.C. 112 is withdrawn in view of the arguments presented by applicant in the amendment filed February 11, 2005 under the subtitle "All Pending Claims Now Fully Comply With 35 U.S.C. § 112".

5. Applicant's arguments filed February 11, 2005 that claims 19-44 are allowable over the combination of Henmi in view of Hapka et al and Tobinaga et al revolve around

Hapka et al disclosing his engine protection system for use with a land vehicle. This argument is basically one of Hapka et al being non-analogous art.

6. In response to such an argument it is pointed out that it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the Hapka et al reference is reasonably pertinent to the particular problem with which the applicant is concerned. That problem is the reduction of engine speed when the lubricant pressure falls below a predetermined pressure. While Hapka et al discloses that his system is adapted for implementation by electronic control systems such as the Cummins SELECT system, Hapka et al does disclose a system in which a controller, which is the electronic control system of Hapka et al, is configured to gradually decrease engine speed if the lubricant pressure is below a predetermined pressure-see column 4, lines 1-31.

7. In further rebuttal of applicant's arguments, it is pointed out that Tobinaga et al discloses a controller 30 which reduces the speed of an outboard motor engine for a low lubricant level.

8. In view of the above, the rejection of claims 19-44 with Henmi, Hapka et al and Tobinaga et al is continued.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherman D. Basinger whose telephone number is 703-308-1139. The examiner can normally be reached on M-F (6:00-2:30 ET)/5:30-2:00(after 4/11/05).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samuel J. Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Sherman D. Basinger
Primary Examiner
Art Unit 3617

Friday, March 18, 2005